NORMAN E. LORENTZ CHIEF TECHNOLOGY OFFICER OFFICE OF MANAGEMENT AND BUDGET BEFORE THE PRESIDENTS COMMISSION ON THE UNITED STATES POSTAL SERVICE

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Mr. Chairman and Members of the Commission,

Thank you for the opportunity to appear before the Commission to discuss the Administration's views on e-government for your consideration as you develop a recommendation on the future mission of the United States Postal Service.

Electronic Government, also known as e-government, is one of the key elements in the President's Management Agenda. The Expanded E-Government Initiative is bringing more services to the American citizen over the internet and improving the management of IT throughout the Executive Branch. Federal investments in IT, through the President's E-government initiatives, frees-up billions of dollars of wasteful federal spending, reduces government's burden on citizens and businesses, and improves government operations to accelerate government response times, often from weeks down to minutes. This Administration continues to believe that e-government must be integrated with the Administration's other management initiatives: budget and performance integration, strategic management of human capital, competitive sourcing, and improved financial performance. The potential for substantial improvement is greater if all these initiatives are pursued concurrently.

E-government is increasingly becoming the principal means by which citizens engage with their government. An September 2002 report from the Pew Foundation found that 71 million Americans have used government web sites – up from 40 million in March 2000. And based on a poll commissioned by the Council for Excellence in Government, citizens overwhelmingly believe that e-government leads to better government. The President sees e-government as part of a larger vision for reforming government.

E-government and the President's Management Agenda

The President's vision for reforming government emphasizes that "government needs to reform its operations—how it goes about its business and how it treats the people it serves." The vision is guided by three principles:

- Citizen-centered, not bureaucracy-centered;
- Results-oriented: and

• Market-based, actively promoting innovation.

For the e-government initiative, the strategic question that we face is how to maximize results from the more than \$50 billion we invest annually in IT.

Electronic commerce and Internet technology have made daily tasks easier and quicker; the U.S. government is now working to do the same for U.S. citizens. E-Government will enable agencies to work together to improve services significantly and reduce operating costs. The e-government initiative is making government more responsive to citizens.

The e-government initiative encourages and supports agencies to implement and use modern, secure technologies to become more productive, while responding faster and better to the needs of American citizens. The e-government initiative promotes the use of e-business tools by agencies in lessening paperwork burdens. This initiative will provide tools for all levels of government – local, state, and federal – to work together. As a result of e-government, conducting business with the government becomes easier, more private, and secure.

Our goal is that government services and information not be more than three "clicks" away when using the Internet. Achieving this vision requires agencies to integrate and simplify their operations.

The Administration's e-govern ment efforts address the six chronic problems that limit results from Federal IT spending. These chronic problems are:

- Paving Cowpaths Agencies have automated existing outdated processes, instead of fixing underlying management problems or simplifying agency procedures to take advantage of new e-business and e-government capabilities.
- Redundant Buying —Agencies have made unnecessarily duplicative information technology investments.
- Inadequate Program Management -- Many major IT projects have not met cost, schedule, and performance goals.
- Poor Modernization Blueprints Few agencies have had plans demonstrating and documenting the linkage between IT capabilities and the business needs of the agency.
- Islands of Automation Agencies have built individual capabilities that are not
 interoperable with one another. Few IT investments significantly improve mission
 performance.
- Poor IT Security -- Major gaps have existed in agency and government-wide information and IT-related security.

Implementing the Strategy

The Administration's E-government Strategy is a two pronged approach to IT reform: modernizing within agencies around the tenants of e-business, and consolidating and integrating IT investments across agencies around groups of citizens. The Federal Government has made significant progress toward becoming a transformed and more productive "E-Enterprise" to serve

citizens, focusing on how information technology is managed at an enterprise level within and across agencies, and ultimately serving citizens. Since the President proposed 24 E-government initiatives in the 2003 Budget, 19 have already delivered significant capabilities and are showing results.

The E-Government Initiatives were selected on the basis of the value they would bring to citizens, while generating cost savings or improving effectiveness of government. The E-Government Strategy focuses on four citizen-centered groups, each providing opportunities to transform delivery of services.

- Individuals: We are focused on building easy to find one-stop-shops for citizens -- creating single points of easy access to high-quality government services. Citizens should be able to find what they need quickly and easily and access information in minutes or seconds, instead of days or hours. For example, our GovBenefits.gov portal is expanding to provide potential beneficiaries with instant access to information for all government benefit programs and services through a single web site.
- Businesses: The Federal government must use the Internet to reduce the burden it places
 on businesses. The Administration cannot continue to make businesses report the same
 data to multiple agencies because of the government's failure to reuse the data
 appropriately, and failing to take advantage of commercial electronic transaction
 protocols. The deployment of these technologies will help streamline the myriad of
 reporting requirements as well as facilitating a more efficient means for business to do
 business with the government. For example, the goal of the Business Compliance One
 Stop project is to reduce the burden of business owners by making it easy to find,
 understand, and comply with governmental laws and regulations.
- Intergovernmental: The Federal government must make it easier for states and localities to meet reporting requirements, while promoting performance measurement, especially for grants. State and local governments will see significant administrative savings and will be able to improve program delivery because the data necessary to measure performance will be more accurate and timely. Moreover, improving the way that information is shared among levels of government will improve the nation's ability to provide for homeland security. Many of the intergovernmental initiatives are designed to improve homeland security as identified in the President's Budget and in the National Strategy released in July. For example, one initiative is a portal that will allow us to use the Internet to improve the delivery process for disaster assistance information to serve the public and the emergency response community.
- Internal Efficiency and Effectiveness: The Federal government must use modern technology to rethink internal processes to reduce costs for federal government agency administration. By using industry best practices in areas such as supply-chain management, financial management, and knowledge management agencies will be able to improve effectiveness and efficiency, eliminating delays in processing, and improving employee satisfaction and retention. A clear model for this is our E-Training initiative, golearn.gov, which is consolidating numerous online federal training capabilities into a

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premier E-training portal (GoLearn.gov), providing enhanced access to high quality training and competency development for federal employees.

The 24 projects achieve results by simplifying and unifying redundant work processes and IT. Agencies have since identified additional opportunities for using e-government to work across boundaries to improve performance and reduce costs.

Significant progress has been made on the projects in the last year, including the launch of numerous government portals, initiative websites and consolidations. Our recent achievements include:

- FirstGov.gov: American citizens' gateway to the federal government. Named "One of the Top 50 Most Incredibly Useful Web Sites" by Yahoo, July 2002 and redesigned to provide government services within "three clicks." The new "three clicks" strategy has increased the number of site visitors by 50%.
- Recreation.gov:Provides citizens with one-stop online access to America's National Parks and public recreation areas. The web site includes links to 1900 federal parks with over 750,000 site visitors per month.
- GovBenefits.gov: One-stop access to information and services of almost 200 government programs representing more than \$1 trillion in annual benefits.
 GovBenefits receives over 500,000 visitors per month and is listed as one of USA Today's "Hot Sites."
- GoLearn.gov: This on -line training initiative is the number one most visited etraining site in the world, with more than 36 million hits for information on many thousands of e-training courses, e-books, and career development resources. GoLearn.gov has already allowed over 30,000 federal employees to receive training at a cost of pennies per course that would not have been possible prior to the launch of GoLearn. Traditional training approaches only serve a fraction of this number of people, often at as much as \$2,500-\$5,000 per class.
- Volunteer.gov: Works in support of the President's USAFreedomCorps initiative allowing citizens to volunteer for more than 100,000 openings at national parks, veteran hospitals and other federal facilities.
- Integrated Acquisition: Helps federal agencies cost-effectively acquire quality goods and services by providing one-stop access to a catalogue of interagency vendor contacts and a record of vendor past performance.
- E-Payroll: is consolidating government payroll processing centers from 22 to two. \$1.2 billion will be saved over the next 10 years by modernizing just two providers, rather than 22.
- IRS Free Filing: Over 78 million Americans can file their taxes online for free beginning in the 2003 tax filing season. In the first 5 weeks for the tax season, 1.3

million Americans have used this service as of February 21st. The number of e-filed returns is up 8.1 percent from the same time last year.

- Regulations.gov: Makes it quicker and easier for citizens and small businesses to find and comment on hundreds of proposed rules. Regulations.gov is estimated to save \$94 million by creating a single system supporting the rulemaking process. Since its launch on January 23rd of this year, the site has had approximately 1.5 million hits.
- E-Clearance: E-Clearance has deployed an integrated database that will enable significant reductions in the security clearance backlog.

We are continuing to focus on improving government responsiveness and reducing the government's burden. Here are some of the initiatives that will have deployments over the next few months:

- Geospatial One Stop Portal will launch in Spring 2003, pulling together all existing and planned federal geospatial assets into one-stop shopping for all customers
- Disasterhelp.gov: Although launched with information for citizens, the need for security limits access to first responders. At the end of April, the initiative will launch a robust set of tools for Federal, state, local, and tribal first responders to work together before, during, and after a disaster.
- Business Compliance One-Stop: One-stop Internet access to help small businesses find the laws and regulations they must comply with to start and/or manage a business.
- E-Grants: The E-Grants website deploys in October, there will be a simple one-stop online place for state and local governments, researchers, faith and community based organizations, citizens and businesses to easily look across 500 grant programs to see what grant may meet their needs.
- Recruitment One-Stop: Will provide o ne-stop access to government job
 opportunities and deliver state-of-the-art on-line recruitment services to job seekers
 including intuitive job searching, on-line resume submission, applicant data mining,
 and on-line feedback on status and eligibility

We have attached a table of our "E-Gov Initiatives at a Glance" which includes the summary of the E-Government Initiatives, recent accomplishments, and coming attractions for the Committee's information.

Agency Success

Agency IT investments continue to make the federal government the largest buyer of IT in the world and agencies are deriving better value from IT. Indeed, more effective use of IT will improve the government's overall performance. This is occurring within agencies by modernizing to support their mission and improve their infrastruct ure and across agencies by simplifying and unifying activities around the needs of citizens.

Some improvements have been attained through better IT management within agencies. Additionally, specific initiatives in the federal IT portfolio have started to deliver real successes in citizen services and government operations. For example:

- Departments of Defense and Veterans Affairs Sharing of Information Technology: The Department of Veterans Affairs has incorporated the Department of Defense's eligibility and enrollment system -- providing veterans with seamless services as they leave the military and apply for benefits at the Department of Veterans Affairs. The Departments also are working jointly on computerized patient medical records that will allow instant exchange of patient information between the two health care systems by the end of 2005. These joint efforts escalate the pace of coordination, reducing costs while increasing efficiency and healthcare quality for those who have served our nation.
- Performance Based Data Management Initiative (PBDMI): At the Department of Education, IT is being used to transform how state student academic performance information is collected and managed. Currently states and school districts are bogged down in complicated and redundant reporting that is not effectively shared among Department of Education programs or education partners. This initiative will result in a streamlined data collection process that reduces burden on State governments and eliminates redundancy across the department.
- I-MANAGE: The cornerstone of the Department of Energy's efforts to improve
 management effectiveness, I-MANAGE will integrate disparate human resources, financial
 management, procurement, facilities management, budget formulation, financial and cost
 accounting systems. I-MANAGE replaces a less effective financial management system that
 was behind schedule. When implemented, I-MANAGE will provide real-time information
 enabling managers to monitor program performance.

Specific Actions to Address Chronic Problems

Agencies must continue to address these longstanding challenges in order to deliver measurable improvements in the key areas of program performance. Over the past year, the Administration made significant progress in addressing the six chronic problems that were identified in the 2003 Budget as limiting IT effectiveness.

1. Automation of existing outdated processes, instead of fixing underlying management problems or simplifying agency procedures to take advantage of new E-Business and E-Government capabilities.

For years IT Investments in the federal government focused on agency hardware and software needs, without addressing underlying management issues in the overall design and scope of the project. Consequently, government agencies traditionally used IT to automate existing

processes rather than create more efficient and effective solutions now possible because of IT. This approach, commonly referred to as paving the cowpath, has been documented as a cause of failure in major IT investments. Systems are often evaluated by the percentage of time they are working rather than the results delivered to the programs and citizen they support.

OMB's guidance for the 2004 IT budget process required that agencies take a comprehensive reform approach in identifying people, processes, and technology required to deliver significantly better results.

2. Duplicative IT investments

OMB policy calls for agencies to make maximum use of shared IT solutions and to stop redundant IT purchases. Best practices in private industry identify several opportunities for savings within an IT portfolio of investments. Three consolidation practices in the private sector also are applicable to the federal government:

- Consolidation of IT around the customer.
- Consolidation of IT within a line of business or function.
- Consolidation of IT infrastructure.

To identify potential opportunities in these areas, OMB analyzed the agency IT investment portfolios and provided feedback and suggestions to the agencies. This consolidation analysis not only identified savings for the agencies, but also served to strengthen the governance processes for IT management by identifying and continually pursuing opportunities in this area. For example, use of enterprise licenses for software can generate hundreds of millions of dollars in reduced cost.

The Administration continues work to ensure that IT investments:

- 1. Reflect consolidation around citizen groups and along lines of business,
- 2. Reduce duplicative collection of data from citizens, businesses, and state and local government
- 3. Purchase enterprise licensees for the federal government where appropriate, and
- 4. Reduce surplus infrastructure capacity.

3. Few IT investments have significantly improved mission performance.

IT investment results have been limited by significant redundancy in federal business operations. As I will discuss later in my testimony, OMB issued guidance requiring that agency IT investments synchronize with the Federal Enterprise Architecture, which is a tool that enables the government to identify opportunities that leverage technology and alleviate redundancy. This effort identified opportunities to simplify processes and unify IT investments across the federal government.

As a result, OMB now can ensure that IT resources are being allocated optimally across common functions that the government performs. Functions that are performed by multiple agencies are now clearly delineated, and the opportunities for cross-agency collaboration to improve performance are readily apparent. Over the past year, OMB used the BRM to:

- Assist agencies in identifying opportunities for collaborative investments, joint
 infrastructure projects, and greater use of enterprise licensing across the government -- all of
 which can help agencies to focus on their mission and avoid unnecessary redundant
 spending.
- Deny funding to redundant investments, while directing agencies to reuse existing IT or join with other agencies making overlapping investments in the appropriate line of business.

4. Few agencies have plans demonstrating and documenting the linkage between IT capabilities and business needs.

The most important element of enterprise architecture is the identification of how IT can be leveraged best to improve agency performance of core missions. Many agency Enterprise Architectures lack focus on business results. As a result, many agencies, bureaus and operating divisions cannot share information or systems. This shortfall increases operating costs as well as burden on citizens and businesses. Additionally, agencies cannot easily analyze IT security risks and determine investment needs; and agencies make redundant investments in IT because programs cannot predict whether IT requirements will be met without buying their own version of a system. These issues can be addressed through better use of enterprise architectures that comprise a "modernization blueprint".

Although some improvements have been made in recent years, agencies still often base IT investments on business cases that fail to link IT investments to performance improvement. Progress in this area includes:

- Agencies are progressing towards fully implementing their own Enterprise Architecture frameworks, meeting criteria set by OMB and the General Accounting Office; these criteria are used to assess agencies on their EA performance as part of their E-Government Score. Some agencies, such as Department of Energy and Environmental Protection Agency, are basing IT investments on core modernization initiatives identified using their Enterprise Architecture activities. These agencies use the Enterprise Architecture process as an opportunity to identify performance gaps and ways that technology can be used to help close those gaps and better serve the citizen.
- OMB has begun to coordinate EA efforts, groups, working groups, communities of
 practices, etc., to ensure that the overall strategy and any guidance for EA is driven by the
 FEA. In their place will be a structured and well-planned mod ernization effort guided by
 the work of the FEA.
- For the 2004 business cases, OMB added specific questions to ensure that agencies began to tie IT investments to the performance goals and measures of the programs they support.

5. Many major IT projects do not meet cost, schedule, and performance goals.

The greatest problem for the agencies is identifying how a project is performing against planned costs, schedule, and mission improvement goals. Until agencies begin to establish and

document baselines, the Administration's ability to assess whether agencies are meeting such goals will be limited.

There are several strategies to improve the government's capacity to manage its IT portfolio. In response to the President's Management Agenda, and emerging needs such as homeland security, the federal IT workforce needs to become flexible to meet these new cross-agency needs. To address this issue, over the past year, OMB:

- Required that all major acquisitions implement an Earned Value Management System
 (EVMS), based on the industry developed ANSI/EIA Standard 748. An EVMS supports
 program management by effectively integrating the work scope of a program with the
 schedule and cost elements for optimum program planning and control. The system requires
 thorough planning, combined with the establishment and disciplined maintenance of a
 baseline for performance measurement.
- Directed that by the end of 2004 all major acquisition programs should have an EVMS in place that will enable agencies to report accurate information on the achievement of the baseline cost, schedule and performance goals during 2005.
- Indicated that for the 2005 budget submissions, OMB will compare what was reported in the 2004 business cases against what agencies report in 2005 to determine whether or not the investments are meeting cost, schedule and performance goals.
- Directed agencies to have a program management plan and a qualified project manager for projects to be approved for spending in 2004 and thereafter, inventory of skills and training opportunities, enhanced training programs, and an online "virtual" job fair.

6. Major gaps exist in agency and government-wide computer-related security.

To ensure that IT security weaknesses are appropriately addressed, OMB requires agencies to develop, implement, and maintain plans of action and milestones for every program and system where an IT security weakness was found. These plans are tied directly to the budget request for a system. Agency progress in executing their plans is used in determining the quarterly E-Government score for the President's Management Agenda Scorecard. OMB is also reinforcing longstanding policy that agencies address serious IT security weaknesses in their legacy systems prior to proceeding with new IT investments.

For the first time, the federal government's IT security program now has a basic set of IT security performance measures, a comprehensive and uniform process for collecting data against those measures, and a set of tasks and milestones that enable tracking of federal IT security progress. Additionally, agency reports reveal that further progress has been made against the six common government-wide IT security weaknesses identified in last year's budget:

1. Increasing agency senior management attention to IT security. In addition to conditionally approving or disapproving agency IT security programs, OMB used the President's Management Agenda Scorecard to focus on serious IT security weaknesses. Through the scorecard, OMB and senior agency officials monitor agency progress on a quarterly basis.

- 2. Development of IT security performance measures. For the 2002 reporting instructions OMB developed high-level management performance measures to assist agencies in evaluating their IT security status and the performance of officials charged with implementing specific IT security requirements. These measures are mandatory and help to ensure that accountability follows authority.
- Improving security education and awareness. Through GoLearn.gov IT security courses
 were available to all federal agencies in late 2002. Initial courses are targeted to CIOs and
 program managers, with additional courses to be added for IT security managers, and the
 general workforce.
- 4. Increasing integration of security into capital planning and investment control. OMB continues to aggressively address this issue through the budget process, to ensure that adequate security is incorporated directly into and funded over the life cycle of all systems and programs before funding is approved. Through this process agencies can demonstrate explicitly how much they are spending on security and associate that spending with a given level of performance.
- 5. Working toward ensuring that contractor services are adequately secure. This issue is currently under review by the Federal Acquisition Regulatory Council to develop, for government-wide use a clause to ensure security is addressed as appropriate in contracts.
- 6. Improving process of detecting, reporting, and sharing information on vulnerabilities. It is critical that agencies and their components report all incidents in a timely manner and it is also essential that agencies actively install corrective patches for known vulnerabilities.

Federal Enterprise Architecture

The need for a Federal government enterprise architecture was one of the most significant findings to emerge from the e-government efforts came from a review of the federal government's enterprise architecture. An enterprise architecture (EA) describes how an organization performs its work using people, business processes, data, and technology. EAs provide modernization blueprints to reform agency operations by aligning business, information, and technology systems which results in improved efficiency and effectiveness for an organization.

OMB is leading the development of a Federal Enterprise Architecture (FEA) with the support of the CIO Council. The FEA is a business-focused framework that provides the Office of Management and Budget (OMB) and Federal agencies with a mechanism to monitor, analyze, and control Federal investments in information technology (IT). The FEA will govern and guide IT investment decisions within agencies, and facilitate the identification of opportunities to collaborate on, consolidate, and integrate current and planned initiatives. The FEA will facilitate horizontal (cross Federal) and vertical (Federal, State, and Local governments) integration of IT resources, and establish the "line of sight" contribution of IT to mission and program performance. The FEA framework consists of a set of five interrelated reference models:

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- Business Reference Model (BRM): The BRM describes the Federal Government's operations independent of the agencies that perform them, and serves as the foundation for the FEA. Version 1.0 of the model was released to agencies in July 2002 supported the FY 2004 budget formulation process. For example, the BRM helped to identify potentially redundant IT investments in the Federal government's business lines, which will ultimately result in significant cost savings. These savings will be available to move into other, citizen-centered investments to further improve Government performance and service to citizens. Version 2.0 of the model is undergoing Agency review and comment, and OMB will officially release it for agency use in support of FY 2005 budget activities.
- Performance Reference Model (PRM): The PRM is a standardized measurement framework to characterize performance in a common manner. The PRM is designed to provide a clear "line of sight" from inputs to outcomes, and identify improvement opportunities across organizational boundaries. The model will allow OMB and agencies to identify common measurements and set baselines and targets. Proposed IT investments can then be considered based on their projected contribution to the processes and activities key to achieving customer and business results. OMB will release the first version of the PRM for agency review and comment by mid-March. Agency comments will be addressed, and the model will be officially released for agency use in support of FY 2005 budget activities.
- Service Component Reference Model (SRM): The SRM provides the foundation for the reuse of applications, components, functions and business services across Federal agencies, and potentially across Federal, State and Local Governments. The first version of the model was released for agency review and comment on January 29th. Agency comments will be addressed, and the model will be officially released for agency use in support of FY 2005 budget activities.
- Technical Reference Model (TRM): The TRM outlines the technical elements that support the adoption of service components. Use of the model will encourage and facilitate both system interoperability and the transition to e-government. This will help to reduce the complexity and isolated nature of many Federal systems, encourage the sharing of infrastructures across agencies, and reduce IT costs. The first version of the model was released for agency review and comment on January 29th. Agency comments will be addressed, and the model will be officially released for agency use in support of FY 2005 budget activities.
- Data and Information Reference Model (DRM): The DRM will provide a consistent framework to characterize and describe the data that supports Federal business lines. This will promote interoperability, as well as the horizontal and vertical sharing of information. OMB is working collaboratively with a small group of interested Federal agencies to define and validate the model, and a draft will be released for agency review and comment in April. OMB expects to officially issue the model for agency use later this year.

Funding IT and E-Government

Agency investment in information technology is necessary to achieve the e-government vision. The President's Budget is clear about our plans to use capital planning to improve performance, achieve outcomes from investments that match agency strategic priorities, and

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provide real benefits to the public. As major corporations have adapted to the digital economy, business cases, enterprise architectures, and IT capital planning have become recognized as highly effective practices. For the first time OMB specifically employed a cross agency approach in the Federal IT capital planning process for leveraging existing IT investments and cross agency partnering.

As mentioned above, this year we identified opportunities for cross-agency projects and have worked to leverage investments from a number of partnering agencies for specific projects. For FY 2004, we developed a governance process for line of business consolidation, identified through design of the Federal business architecture. OMB gave priority to agencies that have worked collectively to present and support activities in an integrated fashion and used agency budget submissions to identify cross-agency investments. Agency activities should be aligned with those of other agencies where such cooperation can better serve citizens, businesses, governments, and internal Federal operations.

Implementation of the E-government Act of 2002

The Administration is pleased that Congress passed the E-government Act of 2002. This Act, signed by the President on December 17, 2002, codifies a cross agency, citizen-centered approach to e-government and authorizes new initiatives across the government. The goals of the E-government Act are similar to those of the President's Management Agenda – efficient government operations and effective decision making.

The activities and initiatives of the Act align with several of the initiatives to further egovernment, along with authorizing activities proposed in the President's Budget. These provisions include the sections authorizing our work on the government's web portal, FirstGov.gov; the development of a framework to provide for interoperability in using digital signatures for agency programs; authorization for electronic access to agency regulatory dockets; the promotion of open geospatial information stand ards; strengthening of privacy measures; and access for persons with disabilities.

In Conclusion.

E-commerce has forever changed the way citizens expect to be served by their government. Our experience in the citizen's rate of adoption of the 24 E-Government initiatives supports this shift in expectations. This change is driven by a focus on the customer, in this case the citizen, and the ability to provide services how they want it, where they want it, and when they want it. The Federal government's efforts are aligned with the following guiding principles:

- A Citizen-centered approach could mean that for any service delivered to the citizen that specific data could be available about what the citizen actually wants, and then an actionable metric could be established to measure the contribution of any investment, in this case technology, to improve processes and performance.
- **Results-oriented** could mean the establishment of measurements and targets in terms of **both** citizen and business performance improvement before any investment is approved.
- **Market-based** could mean the effective use of the proven private sector approaches, when they exist, in improving service performance.

Implementation of Enterprise Architecture.

These guiding principles are enabled by the development and implementation of an Enterprise Architecture (EA). As described in more detail above, and Enterprise Architecture describes how an enterprise performs its work, and provides a structure for improvement based on both citizen and business metrics. In this structure it can be determined the most effective use of scarce human capital, fixed asset and technology resources in providing improved effectiveness and efficiency for the organization. This enterprise approach would also provide the structure within which own versus buy decisions could be made. Regardless of what the enterprise might be, public or private, the EA planning approach enables the effective investment of resources in the context of measurable outcome for the customer/citizen.

The Federal Government has found it useful to answer these six questions in developing more responsive interfaces with the American people:

- Paving Cowpaths Has process improvement occurred before the investment in technology?
- Redundant Buying Are there unnecessary duplicate investments?
- Program Management Are effective management practices in place to ensure performance goals exist and are met?
- Poor modernization blueprints (aka Enterprise Architecture) Are there demonstrated plans connecting IT investments to business/citizen outcomes?
- Islands of Automation Does the right amount of technology interoperability exist in order to provide ever improving business performance?
- IT security Does the right level of security exist to protect the enterprise wide information and IT?

Thank you again for the opportunity to share with you the Administration's views and approaches to E-government. I would be happy to answer any questions you may have.